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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,312	08/10/2005	Manuel Da-Silva	262149US6XPCT	6730
22850	7590	07/15/2008		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER TRAN, BINH Q	
			ART UNIT 3748	PAPER NUMBER
			NOTIFICATION DATE 07/15/2008	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/517,312	DA-SILVA ET AL.	
	Examiner	Art Unit	
	BINH Q. TRAN	3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-15 and 17-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-15 and 17-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>03/19/2008</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is in response to the amendment filed March 24, 2008.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 13-15, 17-22, and 24 are rejected under 35 U.S.C. 102 (e) as being anticipated by Hirota et al. (Hirota) (Patent Number 6,644,022).

Regarding claims 13, and 24, Hirota discloses a method of regeneration of a motor vehicle particle filter (70), in which a device configured for regeneration of the filter are used as soon as a load value of the filter exceeds a predetermined threshold, comprising: calculating a

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parameter representing operating conditions (e.g. L, TQ, N, TF, M, G) of the device configured for regeneration; and controlling operation of the device configured for regeneration in accordance with a value of the parameter (e.g. L, TQ, N, TF, M, G); wherein the parameter representing the operating conditions of the device configured for regeneration includes a ratio (K) of a flow of exhaust gases emanating from an engine of the vehicle and a measurement of a mass of soot burned during use of the device for regeneration over a predetermined period of time (e.g. See col. 13, lines 35-67; col. 14, lines 1-55).

Regarding claims 14, Hirota further discloses which comprises calculating the parameter is calculated continuously while the vehicle is running (e.g. See col. 13, lines 35-67; col. 14, lines 1-55).

Regarding claims 15, Hirota further discloses which comprises calculating the making a calculation of the parameter is made during use of the device configured for regeneration (e.g. See col. 13, lines 35-67; col. 14, lines 1-55).

Regarding claims 17, Hirota further discloses wherein the parameter representing operating conditions of the device configured regeneration includes a ratio between instantaneous flow of exhaust gases and rate of combustion of soot (e.g. See col. 13, lines 35-67; col. 14, lines 1-55).

Regarding claims 18, Hirota further discloses which comprises the controlling operation of the device configured regeneration is controlled by a comparison between the value of the parameter and at least one threshold value stored in memory (e.g. See col. 13, lines 35-67; col. 14, lines 1-55).

Regarding claims 19, Hirota further discloses which comprises extracting the flow of exhaust gases from a map stored in memory in a central computer managing operation of the engine of the vehicle (e.g. See col. 13, lines 35-67; col. 14, lines 1-55).

Regarding claims 20, Hirota further discloses wherein the mass of soot burned is extracted from the map stored in memory in the central computer (e.g. See col. 13, lines 35-67; col. 14, lines 1-55).

Regarding claims 21, Hirota further discloses which comprises determining the mass of soot burned is determined from the mass of soot previously burned and a rate of regeneration of the filter (e.g. See col. 13, lines 35-67; col. 14, lines 1-55).

Regarding claims 22, Hirota further discloses which comprises extracting the rate of regeneration of the filter from a map stored in memory in a central computer managing operation of the engine of the vehicle, depending on internal temperature of the particle filter (e.g. See col. 13, lines 35-67; col. 14, lines 1-55).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirota in view of Shinzawa et al. (Shinzawa) (Patent Number 5,319,930).

Regarding claim 23, Hirota discloses all the claimed limitation as discussed above except that wherein the internal temperature T_{fap} of the particle filter is calculated from equation: $T_{fap} = \alpha T_e + (1-\alpha) T_s$, in which T_e designates inlet temperature of the particle filter; T_s designates outlet temperature of the particle filter; and α designates a coefficient worked out as a function of the difference between the inlet temperature T_e and the outlet temperature T_s , based on a mapped function in the central computer.

Shinzawa teaches that it is conventional in the art, to a computer to calculate the internal temperature T_{fap} of the particle filter from equation: $T_{fap} = \alpha T_e + (1-\alpha) T_s$, in which T_e designates inlet temperature of the particle filter; T_s designates outlet temperature of the particle filter; and α designates a coefficient worked out as a function of the difference between the inlet temperature T_e and the outlet temperature T_s , based on a mapped function in the central computer (e.g. See col. 13, lines 10-67; col. 14, lines 1-48).

It would have been obvious to one having ordinary skill in the art at the time the invention was made, to use a computer to calculate the internal temperature T_{fap} of the particle filter from equation: $T_{fap} = \alpha T_e + (1-\alpha) T_s$, in which T_e designates inlet temperature of the particle filter; T_s designates outlet temperature of the particle filter; and α designates a coefficient worked out as a function of the difference between the inlet temperature T_e and the outlet temperature T_s , based on a mapped function in the central computer of Hirota, as taught by Shinzawa for the purpose of controlling temperature of the particulate filter more precisely, so as to reduce the poisoned materials in the particulate filter, and further improve the performance of the engine and the efficiency of the emission system.

Response to Arguments

Applicant's arguments filed March 24, 2008 have been fully considered but they are not completely persuasive. Claims 13-15, and 17-24 are pending.

Applicant's cooperation in explaining the claims subject matter more specific to overcome the claim objections relating to indefinite claim language is also appreciated. Applicant's cooperation in explaining the claims subject matter more specific to overcome the claim rejection is appreciated.

Applicant's arguments with respect to claims 13-15, and 17-24 have been considered but are moot in view of the new ground(s) of rejection as discussed above.

Applicant's amendment (claims 13-15, and 17-24) necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL See MPEP, 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for response to this final action is set to expire THREE MONTHS from the date of this action. In the event a first response is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for response expire later than SIX MONTHS from the date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Binh Tran whose telephone number is (571) 272-4865. The examiner can normally be reached on Monday-Friday from 8:00 a.m. to 4:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reach on (571) 272-4859. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular communications and for After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/BINH Q. TRAN/
Binh Q. Tran
Primary Examiner, Art Unit 3748
July 05, 2008